CLAIMS:

1. A laboratory centrifuge with a rotor (2) driven by a centrifuge electric motor (5) and a cooling unit (17) driven by an electrical cooling motor (22), wherein the centrifuge motor (5) is formed as a frequency-controlled induction motor fed from a frequency converter (20) controlled by a control unit (30) and having a centrifuge inverted rectifier (7) that feeds the centrifuge motor (5) and is connected to a d.c. source (10) fed from a mains power rectifier (12), **characterized in that** the cooling motor (22) is formed as a frequency-controlled induction motor, and that the frequency converter (20) for feeding the cooling motor (22) has a further cooling inverted rectifier (24) connected in parallel with the centrifuge inverted rectifier (7) to the d.c. source (10).

2. A laboratory centrifuge according to claim 1, characterized in that the control unit (30) controls the two inverted rectifiers (7, 24) independently from each other.

3. A laboratory centrifuge according to claim 2, characterized in that the control unit (30) controls the cooling inverted rectifier (24) with a

predetermined reduction of the frequency if the frequency of the centrifuge inverted rectifier (7) is strongly reduced.

4. A laboratory centrifuge according to claim 2, characterized in that the control unit (30) reduces the frequency of the cooling inverted rectifier (24) during acceleration of the centrifuge motor (5).

5. A laboratory centrifuge according to claim 2, characterized in that the control unit turns off the cooling inverted rectifier (24) below a minimal frequency.